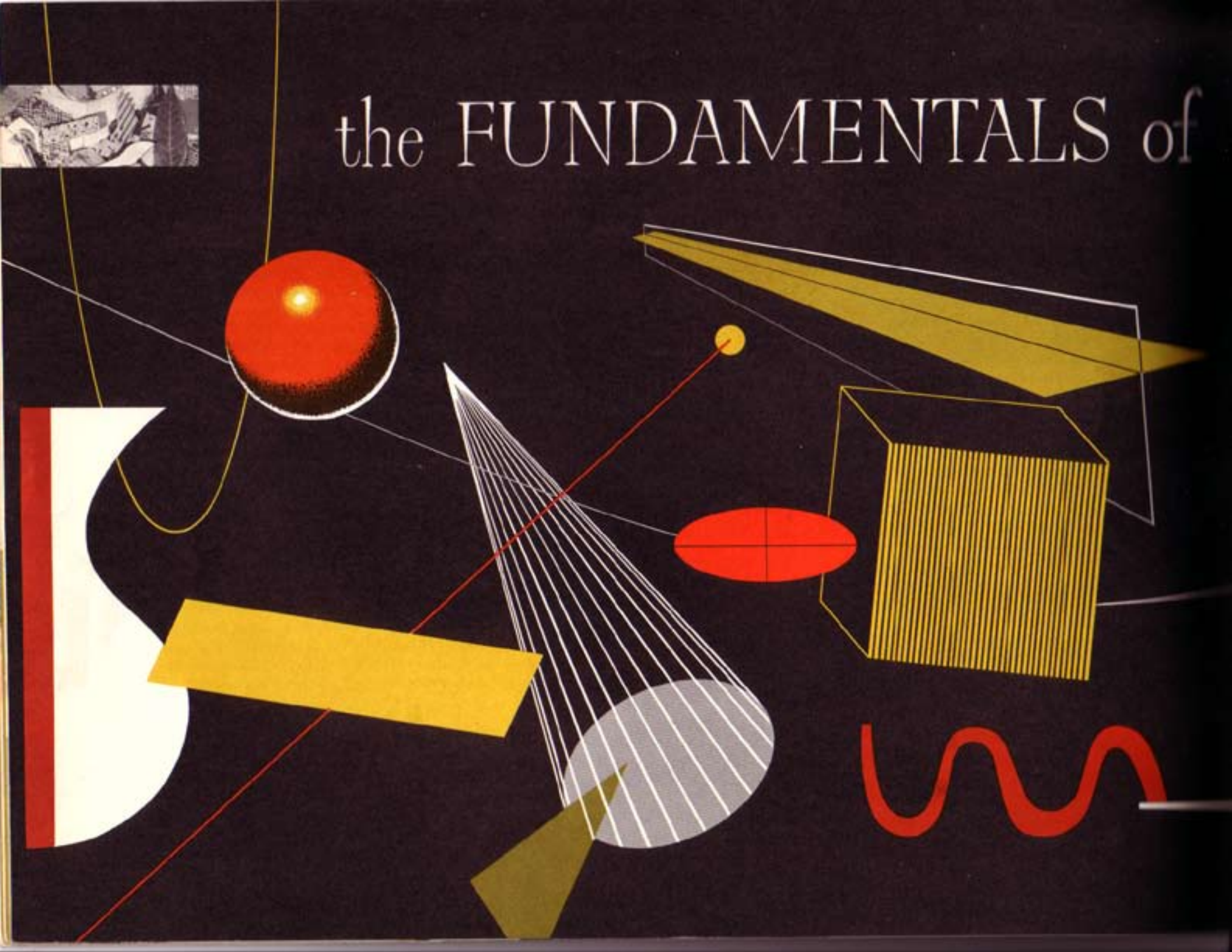


Styling

THE LOOK OF THINGS



the FUNDAMENTALS of



DESIGN

The Elements of Design

In preceding paragraphs we spoke of creativity in the Stylist as the ability to materialize beauty. Here then is the key to the entire activity of design and styling. How does a Stylist go about materializing his ideas? What techniques does he use? What language does he speak?

As aids in the process of developing a design, the Stylist employs two creative skills, sometimes separately, sometimes in conjunction with each other, depending on the nature of the product. First, he tests his ideas on paper. With rough sketches he establishes preliminary relationships as he begins to plan his visual organization. Then he further develops his idea in clay, plaster or wood, in the same manner as a sculptor. Although the ability to draw and to sculpture is almost standard equipment with the modern Stylist, some of the finest practicing designers cannot draw a line themselves and have little talent in clay. What they have is good taste, a

sense of proportion, a basic feeling for rhythm plus the ability to direct creative activities.

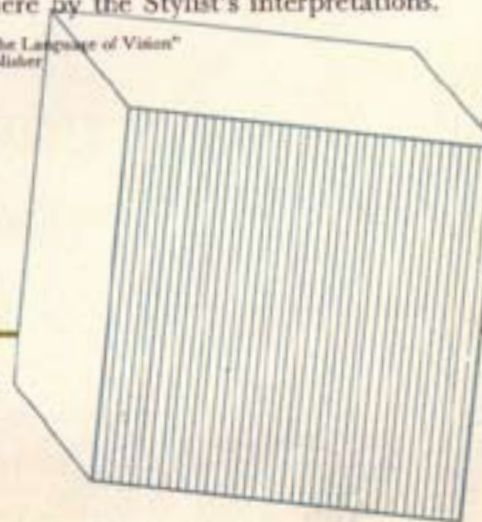
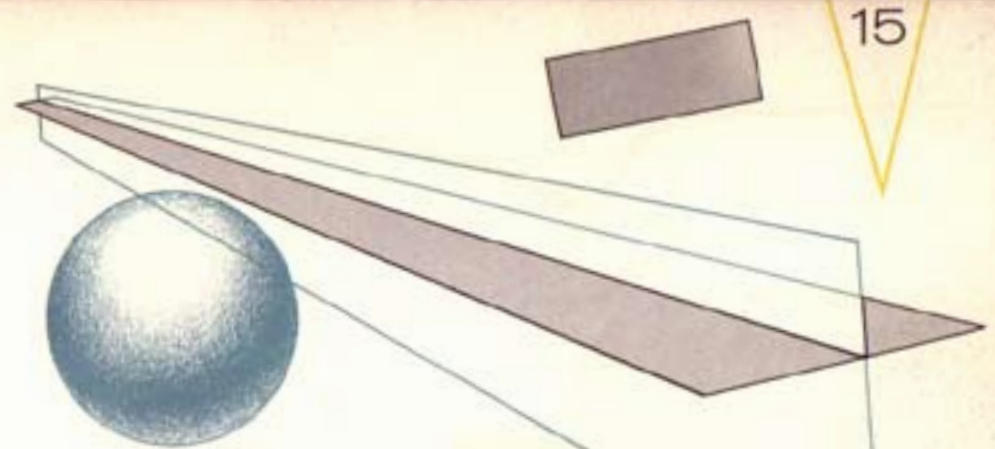
As with any means of communication, the art of design has its own language—sometimes called the language of vision.*

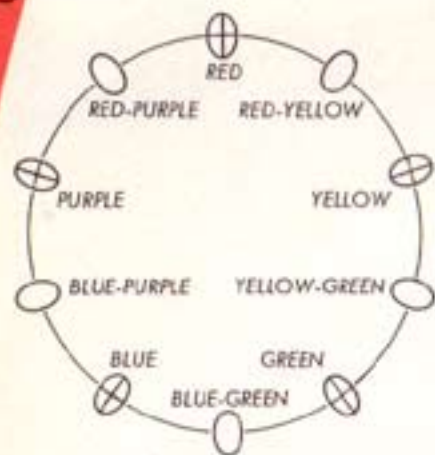
This special language has only four basic symbols: line, plane, form, and surface quality (which includes value, color and texture).

Any visual organization or design, regardless of how complicated or spectacular, is the result of blending these four visual ingredients.

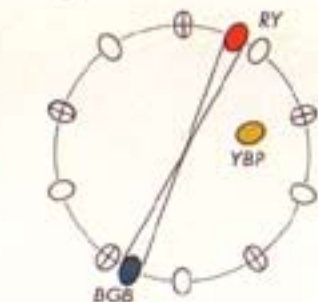
These symbols have many interpretations. To a painter who specializes in two-dimensional design, these terms have a different significance than to the sculptor or Stylist, both of whom deal in three dimensions. Naturally, we will be influenced here by the Stylist's interpretations.

*Gyorgy Kepes, "The Language of Vision"
Paul Theobald, Publisher





surface color



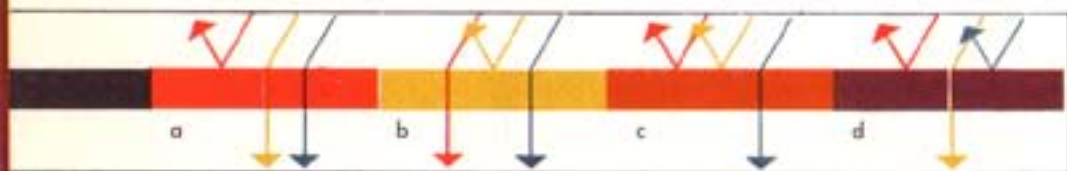
Shown here is a color wheel based on the widely used Munsell color system. Five primary and five secondary colors or hues are indicated. Pairs of adjacent colors on this wheel are known technically as "harmonious" hues; colors opposite to each other are complementaries. (Above) the three colors used in this booklet are located properly on the color wheel: a grayed yellow (yellow blue-purple); a red-yellow; and its complementary, blue green-blue.

All of us realize if we stop to think about it that "white" or natural light is made up of all the colors of the rainbow. When we see a rainbow it is a separation of natural light into various colors by the atmosphere.

Many surfaces act as selective filters to the color components of natural light, reflecting some, absorbing others. The ability of a surface to reflect a pure or spectrum color to the exclusion of others is called hue. Red, yellow, green, blue and purple and their intermediate colors are hues. Natural light falling on a surface covered with red pigment, for example, is reflected as red. All other light rays are absorbed.

Some types of surfaces are not so selective, but reflect a combination of colors which the eye sees as a neutralized color. This type of surface is said to reflect less than the maximum intensity or purity of color.

The art of controlling surface color has been carefully studied by the Stylist as a means of increasing contrast and adding interest to a design. He rates color as a design element



Schematic drawing showing various color selective surfaces: (a) a primary hue (red); (b) another primary hue (yellow); (c) a secondary hue (mixture of red and yellow); (d) a mixture of complementaries (red and blue). Note that booklet colors have been used to represent primary hues.

Tints—Red + White

Starting with one hue, red, the chart at right shows how a color's value may be changed (top row) by adding white to make tints or black to make shades. Mixing red with its complementary, blue, in various proportions reduces its intensity.

Shades—Red + Black



The enlarging and diminishing effect of color on the size relationship of adjoining areas.



A harmonious color scheme using closely allied hues.

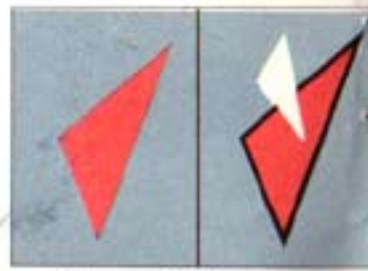


A complementary color scheme using opposing hues.

NEUTRAL



The advancing effect of red and the receding effect of blue when used together.



The use of white, gray or black helps harmonize two colors lacking in contrast.



An effective color scheme is characterized by contrast in one or more of the following: hue, value, chroma and area. In the sketch at left variety of hue (red, yellow and blue), value (white, light blue, dark blue, red and dark red), intensity (yellow and grayed yellow, red and grayed red) and area are illustrated.

second only to line and form. The mixing and blending of pigments (color selective materials) is a highly complicated subject, too involved for discussion here.

the meaning of color

Our individual reaction to colors is often based on past associations. By frequent identification with some idea, faith, or personal experience, a color comes to be symbolic. This explains why we usually associate purple with royalty; greenish yellow with sickness and disease; blue with atmosphere; green with freshness and youth; and white with purity.

During recent years we've come to realize that these associations are not necessarily valid. Any color, if used properly, can have great aesthetic appeal, a fact that is apparent in the recent use of more vivid and varied colors in our clothing, homes and automobiles. In addition to its aesthetic appeal, color has a definite effect on other design elements.

Certain combinations of color, for example, change the apparent size relationship of adjoining areas or masses. In the drawings at the left you can see one effect of this optical illusion. Although both rectangular shapes are exactly the same size, that on the left appears much larger.

Another type of illusion produced by color is an advancing and receding effect. When red, a warm, advancing color, is used with blue, a cold receding color, a three-dimensional effect is produced.

The Principles of Design

Someone has said that a beautiful painting is to be looked at, not talked about, a saying that reflects the difficulty of putting into words the same emotions and aims that exist in the visual artistry. It is also difficult for a professional Stylist to describe the points of superiority in a good industrial design. How can you pluck one part from the whole and consider it as a separate entity? It's almost impossible to break a design into components or to put into words the method of organization that holds it together.

We can generalize, however, about some of the characteristics common to most good designs. Among these are unity, variety, balance, proportion, and rhythm, the principles by which the four elements of design are bound together.

Unity and Variety

Unity and variety are the means by which we analyze the over-all effect of a design. If a design has unity we mean that everything in it is woven together, according to some well laid plan. The functional and aesthetic relationships are combined and balanced to make a complete self-contained design. Another name for unity is harmony.

Just as important to the success of the design is variety, which means the use of contrasting elements so controlled and placed as to hold and retain our attention. Variety means interest, the opposite of monotony.



LACK OF UNITY

UNITY



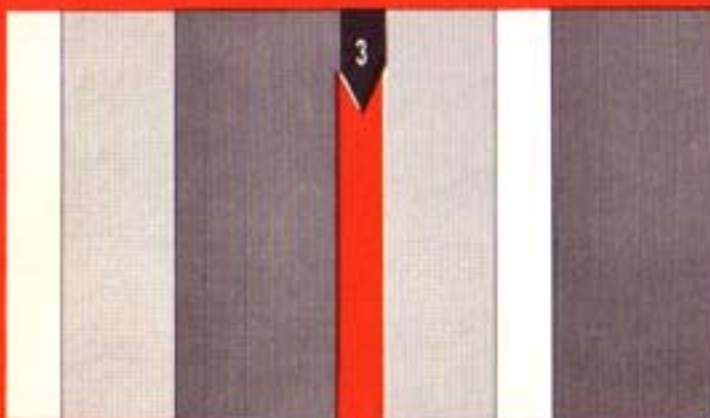
A

B



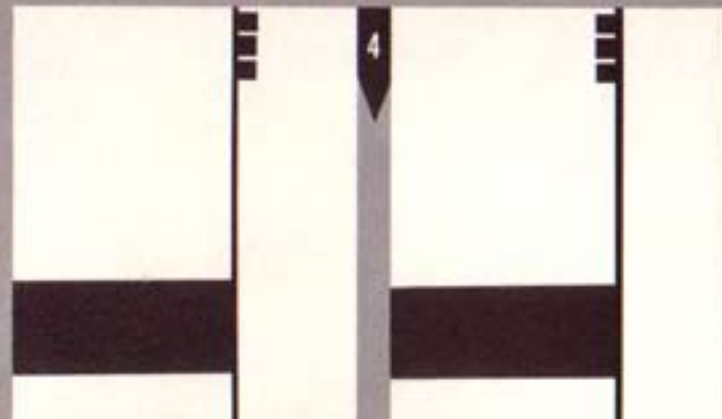
A

B



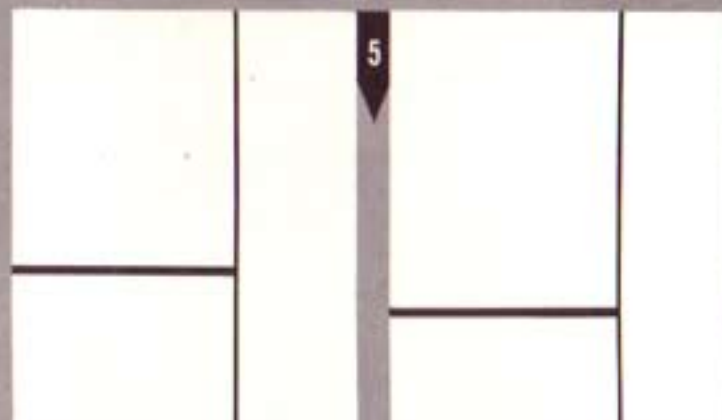
A

B



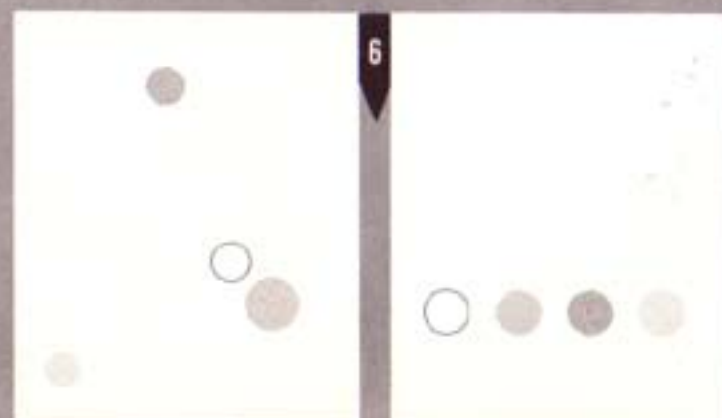
A

B



A

B



A

B



A



A



A



B



B



B



A



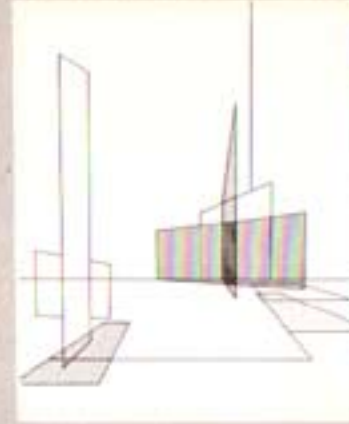
B



A



B



A



B



A



B

Compare Your Design Taste with the Experts

Here is a test that you can take just for fun to see how your design taste compares with the experts. These drawings have been prepared at the request of General Motors Styling by advanced students of industrial design at Pratt Institute, Brooklyn, New York. As you examine the designs, keep in mind that none of them has any relation to familiar objects or recognizable patterns in your everyday life. Each pair of drawings simply represents one good and one bad solution of some fundamental design problem. It may be the subdivision of a plane surface as is the case in the first example. Greater interest generally results if the division is uneven, as opposed to an even division which is considered monotonous.

Bear in mind that only simple lines and shapes have been used in these exercises and that each problem centers around

arranging these specific elements within the confines of a rectangle in such a way as to illustrate a specific principle.

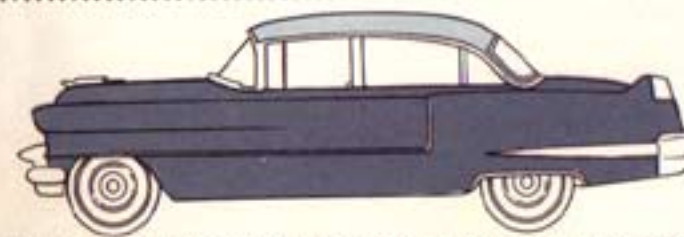
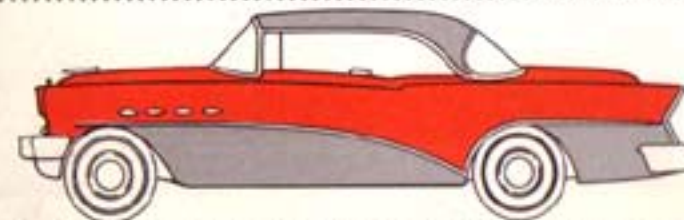
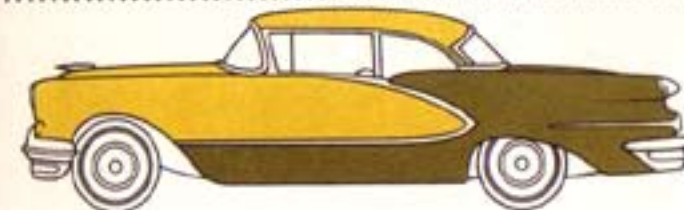
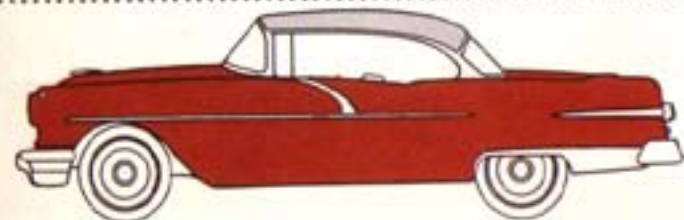
Place a check mark beside each drawing of your choice among the thirteen sets. Then turn to page 47 for an explanation of the principle involved and the experts' choice. Although you may not "like" the preferred choice as well, we hope that after reading the answers you will have a better understanding of the principles involved.

After totaling up the number of correct choices you have made, multiply this number by three. A score of 36-39 shows an excellent grasp of the fundamentals illustrated; 30-33 is good; and 24-27 is fair. Please remember that this is not an I.Q. test for design ability, but another way of pointing out the use of the principles of design.



Compare Your Design Taste with the Experts

Choices of the Experts
and an Explanation of the Design Principles Involved



- 1** B is the preferred choice. In subdividing an area, division into equal parts is considered monotonous. Uneven divisions offer more variety and greater interest.
- 2** A is the preferred choice because it is better balanced. The strong arrow-like points in B pull to the left; there is nothing to oppose or balance them.
- 3** B is the preferred choice. In A the division of area follows a monotonous ratio of 1-2-3. In B, a 2-1-3 division provides a self-contained unit within a frame. B is better organized.
- 4** A is the preferred choice. The use of the three small squares on the right of the vertical black line helps bring the vertical white space into the design.
- 5** A is the preferred choice because it offers greater variety. The horizontal line divides the large vertical white area into two parts, the dimensions of which are not repeated in the third area. In B each dimension of the small area is repeated in one of the other two.
- 6** A is the preferred choice. In A the circular elements vary in size and value. Their arrangement is a good example of informal symmetry and variety. In B all elements are the same size and the arrangement is formally symmetrical. As a result it is quite monotonous.
- 7** A is the preferred choice. The large white shape on the left is well balanced by a small dark shape on the right. In B the darkness of the large area destroys optical balance, since there is nothing to oppose it.
- 8** B is the preferred choice. The lone circle in A seems out of place because it is unrelated to other parts of the design. In B a repetition of circular elements given meaning to the circle.
- 9** B is the preferred choice. Repetition of the same size dark shape three times in A ignores the problem of balance which is solved nicely in B by varying the sizes of the dark areas.
- 10** B is the preferred choice. Here a series of similar shapes creates a feeling of movement through rhythmic repetition. The arrangement of elements in A lacks this relationship and the design tends to disintegrate.
- 11** A is the preferred choice because the axis of the two dark areas change direction and guide the eye back into the design. In B the axis are parallel and the eye moves from top to bottom with nothing to interrupt the movement.
- 12** A is the preferred choice because the directional forces or planes counter-balance each other. In B all forces are located on one side and point to the left causing an unbalanced condition.
- 13** A is the preferred choice. Better contrast is produced through the use of a wide range of values. With a narrow value range definition of the shapes is not established and the result is monotonous.





GM

GENERAL
MOTORS

STYLING THE LOOK OF THINGS